Report Form for
Water Conservation Plans
Small Community Water Systems
July 2010

PROJECT NAME: **47 North Lowell Road**
Well No. 1 and Well No. 2
TOWN/CITY: **Windham, New Hampshire**
DATE: **July 2010**
EPA ID # **NEW SYSTEM**

PURPOSE This form provides the information needed for small community water systems to meet the reporting requirements of Env-Ws 390, *Water Conservation Rules.* Once completed, this form can fulfill the requirements of Env-Ws 390.10. You don't have to use this form. However, based on experience, the DES has found that use of a form speeds the application process. If you prefer to produce an original report, remember to provide **all the information** required under the rules and the DES recommends that you use this form as a checklist to help ensure your report is complete. Helpful information and reminders are provided throughout the form and are printed in (parenthesis). Copies of this form, the rules, a summary of the rules, educational materials for public distribution, and other useful publications may be found at http://www.des.nh.gov/h2o_conservation.htm.

INSTRUCTIONS

A. Obtain copies of the following materials from either the DES's Public Information Center (603) 271-2975 or from http://www.des.nh.gov/h2o_conservation.htm.

- Administrative Rule, Env-Ws 390, *Water Conservation Rules*.
- Fact sheet, *Summary of the Water Conservation Rule.*
- Any pertinent water efficiency fact sheet.
- Extra copies of this form.

B. Review the water conservation rules and guidance materials obtained above. You should use these materials to prepare your water conservation plan. It is suggested that you submit a draft plan for review prior to meeting your public notification requirements in case substantive changes to the plan are necessary. Resubmittal of the report to the public entities can be avoided if initial review is performed by the DES.
C. Complete the form by answering all questions and providing the appropriate attachments. Answer the questions from top to bottom, unless instructed to skip to another section. Helpful information and reminders are provided throughout the form and are printed in (parenthesis).
D. Before submitting, review the form to ensure all questions are answered and all attachments are included. When complete submit to:

Water Conservation Plans
Small Community Well Siting Program
NHDES, Drinking Water and Groundwater Bureau
Post Office Box 95
Concord, NH 03302 -0095

For help with this form or other water conservation planning concerns call Derek Bennett at (603) 271-6685.

Information contained in this form is current as of February 2006. Statutory or regulatory changes that may occur after October 2005 may cause part or all of the information to be invalid. If there are any questions concerning the status of the information please contact DES at (603) 271-2947.

Section 1.0 GENERAL INFORMATION

WELL SITING

Has a Preliminary Well Siting report been submitted to the DES? *(*If your answer is **NO**, please contact the DES at (603) 271-2947 before you proceed further.*)*

YES_**X**__ NO___ **July 8, 2010**

(The section below asks you to identify the people and companies responsible for the water conservation plan application. This information will help ensure clear communication during the application process.)

1.1 Project Contacts / System Ownership

1.1a Project Contact (Person completing this form?)

Name:	**Neil W. Helberg, P.E.**
Address:	44 Stark Lane, Litchfield NH 03052
Company:	**Lewis Engineering, PLLC**
Phone Number:	603-886-4985

1.1b Project Owner (Who is responsible for compliance with the water conservation plan, as approved by the DES?)

Name:	**Gary Butterfield**
Address:	44 Morrison Road, Windham, NH 03087
Company:	
Phone Number:	603-860-1141

1.1c Person responsible for completing the activities outlined in this plan (Please note that the person completing water conservation plan activities must be a certified water system operator or water system personnel supervised by the certified operator.)

Name:	**New Hampshire Certified Operator**
Company:	**(Water Company, Service Company or Individual)**
Address:	**To be determined**
Phone Number:	

1.1d Will ownership of the water system be transferred at a future date from the person listed in 1.1b to a homeowner's association or other entity?

YES_ **X** __ NO___

If **YES**, indicate below the contact information for the new owner of the water system.

Name:	**Homeowner's Association or Water Company**
Address:	**To be determined**
Company:	

Section 2.0 METERING AND LEAK DETECTION

(This information is needed to help ensure the water conservation plan will meet the intended purpose and that the plan is designed appropriately.)

2.1 Water System

2.1a Is this a new source for an **existing** community water system?
YES___ NO_ **X** __ (If **YES**, you must complete **Sections 2.3**, **3.0**, **5.0** and **6.0**)

2.1b Is this a new source for a new or existing community water system owned by a landlord who supplies water to tenants and includes water service in rental fee, or a new or existing community water system for apartment-style housing that includes water service in a housing fee?
YES ____ NO __ **X** __ (If **YES**, you must complete **Sections 2.3**, **3.0**, **5.0** and **6.0**)

2.1c Is this a new source for a **new** community water system that **does not** meet the description in (a) or (b) above?
YES_ **X** __ NO___ (If **YES**, you must complete **Sections 2.2, and 3.0 through 6.0**)

2.2 New Small Community Water Systems

(Meters must be installed on all sources of water and at each service connection on new small community water systems that do not meet the definition of 2.1a or 2.1b above.)

2.2a Describe below the size of both the source and service connection meters to be utilized by the water system. (In selecting, installing, and maintaining water meters, the water system must comply with procedures and protocols described in "Manual of Water Supply Practices, Water Meters", document AWWA M6, available from the American Water Works Association. www.awwa.org/bookstore)

PUMP HOUSE METERS

- 1-INCH WELL METER.....Well No. 1
- 1-INCH WELL METER.....Well No. 2
- 1-1/2 -INCH STATION DISCHARGE…....1 EACH.

HOUSEHOLD / COMMON BUILDING METERS

- Positive Displacement Water Meters to be sized per AWWA Standards

When selecting, installing and maintaining water meters, the water system will comply with the procedures and protocols described in "Manual of Water Supply Practices, Water Meters", document AWWA M6, AWWA - 1999 available from the American Water Works Association. www.awwa.org/bookstore

METER TESTING AND REPLACEMENT

HOUSEHOLD.& COMMON BLDG METERS

- Positive Displacement Water Meters to be tested or replaced every 10 years per AWWA Standards

PUMP HOUSE METERS

- Positive Displacement Well Meters to be tested or replaced every 5 years per AWWA Standards
- Discharge Meters shall be tested per manufacturer's recommendations or every three years.

2.2b Describe below the frequency in which each type of meter will be read. (Source meters must be read at least every 30 days and service meters must be read at least every 90 days.)

Source meters at the pump house will read at least twice a month, and the Household /Common Building service meters will be read at least every quarter. Source meters will be read on the same day as the house service meters are read.

2.2c Water Audit and Leak Detection Program and Estimating Unaccounted-For Water

Describe below the system's water audit and leak detection program and how the water system will estimate the volume and percentage of unaccounted-for water. Also note how often the water system proposes estimating unaccounted-for water. (All new small community water systems or existing small community systems that are adding new connections, must meet this requirement. Estimates of unaccounted-for water must be performed at least once a year. If unaccounted-for water exceeds 15 percent, the system shall develop a response plan in accordance with Env-Ws 390.05(j) and (k), and submit it to the DES within 60 days.)

The water system shall have an ongoing water audit and leak detection program in order to keep the amount of unaccounted-for-water as low as possible. The certified operator or qualified water professional shall implement a water audit and leak detection program in accordance with "Manual of Water Supply Practices, Water Audits and Leak Detection" document identification number AWWA M36, American Water Works Association, 1999. Any leaks located by the leak detection survey shall be repaired within 60 days.

The certified operator will calculate the percentage of unaccounted- for-water at least once per year. Unaccounted- for- water is the difference between the total water pumped from the pump station, and the customer metered usage. If the percentage of unaccounted- for-water vs. pumped water exceeds 15%; a response letter a response letter shall be submitted to the DES for approval within 60 days.

Section 3.0 PRESSURE REDUCTION

(Pressure reduction shall be implemented upon obtaining approval of a new source of water when it is technically feasible, consistent with industry standards, and consistent with public health and safety considerations. Existing small community water systems have one year after approval of the conservation plan to implement this requirement, if feasible. All pressure reduction measures must meet the requirements of Env-Ws 372, Design Standards for Small Community Public Water Systems.)

Is pressure reduction technically feasible for this system? If **YES**, explain below how it will be accomplished for the system. If **NO**, explain why below.

YES___ NO_ **X** __

Pressure leaving the pump house will likely be 75+/- psi.
The pressure at the highest unit will be 45 psi or less.
The lowest unit will have a pressure of 88+/- psi.

Section 4.0 CONSERVATION RATE STRUCTURE

(All new small community water systems and existing small community water systems that are adding new service connections must adopt a rate structure as described in Env-Ws 390.04.)

Describe below the conservation rate structure the water system proposes adopting, **or** if not practical or feasible for the system, describe below how the water system will manage water service fees to meet the intent of the rule and promote water conservation. (You will need to fill out a waiver application form found at the end of this document.)

MONTHLY RATE*

Service Area: 47 North Lowell Road – Windham area.

METER	RATE
AWWA SIZING	Rate Structure to be determined by the Homeowner's Association

The NHDES DWGB shall be notified once a Rate Structure has been selected by the Homeowner's Association.

Section 5.0 PUBLIC NOTIFICATION

(Within seven days of submitting the final water conservation plan for review by the DES a small community water system must provide a copy of this report via certified mail to the governing board of the municipality in which a proposed source is located, to all wholesale customers [if

any], and to the regional planning commission for the location of the proposed source. The water system shall supply the governing boards with a copy of a summary of the requirements of Env-Ws 390. This document can be found at http://www.des.nh.gov/h2o_conservation.htm. You must also note in your correspondence to the above-mentioned governing boards that a copy of the Well Siting Application is available for their review at the DES and provide them with DES contact information. The water system shall request that the governing boards amend any site plan submitted to them for review so that it reflects the requirements of Env-Ws 390 and promotes water conservation landscaping principals.)

List the names and addresses of the governing boards receiving public notification. Attach a copy of the cover letter sent to the governing boards and a copy of the certified mail receipts when available. List the educational/outreach materials that the system is providing to the municipalities for review.

David Sullivan Town Administrator Town of Windham 4 North Lowell Road Windham, NH 03865	Cliff Sinnott Executive Director Rockingham Planning Commission 156 Water Street Exeter, NH 03833

Section 6.0 EDUCATIONAL OUTREACH INITIATIVE

(Such an initiative may be achieved in many ways, but must be implemented immediately upon approval of the conservation plan and should include the pertinent water efficiency fact sheets that can be found at the website listed at the beginning of this report. These educational mailings can be included with wellhead protection program educational mailings as required by Env-Ws 378.18 or with the water system service bills. Other acceptable outreach initiatives include water system or homeowner's association newsletters, posting of water conservation fact sheets in public areas used by water system customers, or any other initiative that meets the intent of the rules.)

Provide a brief description of your educational outreach initiative. Include implementation procedures, the person responsible for the initiative, the content of educational mailings proposed (if any), and the wording of any newsletter insertions or public postings. (There is no need to provide copies of educational outreach materials that you are acquiring from DES. Only provide copies of educational outreach materials generated by the water system.)

Educational Outreach fact sheets will be distributed yearly with the Consumer Confidence Report. Educational outreach materials will be obtained from the NHDES WSEB or AWWA.

Before submitting, thoroughly check this form to be sure all applicable questions are answered, all information is provided, and all necessary attachments are included. Incomplete submittals will significantly slow the approval process.

If strict compliance with any of the requirements of Env-Ws 390 is not feasible, the small community water system may apply for a waiver to a specific portion of the rule. A waiver application form is provided at the end of this document for your convenience.

Preparer's Signature _____

Date 7/26/10

As a reminder, have you included the following?

- Educational outreach initiative documentation and materials created by the water system.
- Public notification documentation (certified mail receipts).
- Public notification cover letters and pertinent documents.
- Other pertinent or supportive materials.

Water Conservation Rules (Env-Ws 390)

Applicants applying for permits to develop new sources of water need to be aware that they are subject to new water conservation requirements required by RSA 485.61 which became law in July 2002. The law requires that the Department of Environmental Services (Department) adopt and administer water conservation rules for applicants developing the following type of new water sources:

1. New sources of groundwater for community water systems subject to RSA 485:3;

2. New sources of groundwater for bottled and bulk water operations subject to RSA 485:3;

3. New sources of groundwater that exceed 57,600 gallons over any 24-hour period subject to RSA 485-C; and

4. New sources of surface water associated with projects that require a water quality certification pursuant to Section 401 of the Federal Clean Water Act.

The Department met with an advisory committee consisting of representatives of municipalities, community water systems, environmental organizations, and business and industry to develop the water conservation rules. The rules were formally adopted by the Department in May 2005.

A general summary of the requirements of the water conservation rules is provided below.

Requirements for All Large Community Water Systems and All New Small Community Water Systems Developing New Sources of Water

1. Install and maintain meters for all water withdrawals and service connections.

2. Implement a water audit, leak detection and leak repair program in accordance with the "Manual of Water Supply Practices, Water Audits and Leak Detection", document identification number AWWA M36, American Water Works Association, 1999.

3. When applicable, development and implementation of response plans to reduce unaccounted for water to less than 15%.

4. Implement a rate structure that encourages efficient water use.

5. Implement a water conservation educational outreach initiative.

Requirements for Existing Small Community Water Systems Developing New Sources of Water

1. Either: a) Install source and service connection meters and implement a water audit, leak detection and leak repair program in accordance with the "Manual of Water Supply Practices, Water Audits and Leak Detection", document identification number AWWA M36, American Water Works Association, 1999; **or** b) Complete a system-wide leak detection once every two years.

2. Repair all leaks within 60 days of identification.

3. Implement a water conservation educational outreach initiative.

Requirements for Applicants Developing New Sources of Water for Industrial, Commercial, or Institutional Water Uses

1. Install water meters for all water sources.

2. Retrofit or replace single pass water-cooling systems when feasible based upon an economic analysis that includes a four-year payback period.

3. Install controls to stop the overflow or discharge of water to waste when feasible based upon an economic analysis that includes a four-year payback period.

4. Identify water conservation best management practices or best available technologies that may be applicable to the types of water-using processes at the subject facility, and implement these measures when feasible based upon an economic analysis that includes a four-year payback period.

5. For all new lawn areas, install six (6) inches of loam and devices to shut-off automatic irrigation systems when not needed.

For more information about the water conservation rules, contact Brandon Kernen at 271-0660 or bkernen@des.state.nh.us.

Water Conservation Requirements for New Small Community Water Systems
(Env-Ws 390, *Water Conservation*)

A new small community water system seeking approval for a source of drinking water must meet the requirements of New Hampshire Administrative Rule Env-Ws 390, *Water Conservation.* Those requirements are outlined below.

Application (Env-Ws 390.10). A proposed small community water system shall submit a report with the Preliminary Well Siting Report that demonstrates compliance with Env-Ws 390.04, 10, & 11. The report should address the following issues:

- Metering. Include a timetable for installing water meters on all service connections except that used for firefighting and all water sources (wells). This section should also document the proper sizing of the above water meters in accordance with the specifications of the manufacturer. Selection, installation, and maintenance of water meters must comply with procedures and protocols described in "Manual of Water Supply Practices, Water Meters-Selection, Installation, Testing, and Maintenance," document identification number AWWA M6, American Water Works Association, 1999. The report must reflect the recommendations of this manual.

- Maintenance Plan. The plan shall include a schedule for reading meters. All meters on individual service connections must be read at least once every 90 days. All source meters must be read at least once every 30 days. The selection, installation, and maintenance of water meters shall be completed by-water system personnel under the supervision of a certified water system operator.

- Water Audit and Leak Detection Program. Propose a Water Audit and Leak Detection Program, including an implementation schedule and responsible person, that meets the guidelines in the "Manual of Water Supply Practices, Water Audits and Leak Detection" document identification number AWWA M36, American Water Works Association, 1999. The Program should also include a schedule to repair all leaks identified during the water audit and leak detection survey. Env-Ws 390 requires that all leaks be repaired within 60 days of discovery unless a waiver is obtained. The Program must include a process for estimating the volume and percentage of unaccounted-for water using protocols and procedures described in AWWA M36. These estimates must be made yearly. **

- Unaccounted for Water Response Plan and Schedule. In the event that the percentage of unaccounted for water identified during the Water Audit and Leak Detection survey exceeds 15% of the total water introduced to the water system, the water system operator must prepare and submit a Response Plan to the department within 60 days of discovery Propose a process, timetable, and the person responsible for preparing and submitting a Response Plan. The Response Plan shall identify how the water system intends to reduce the percentage of unaccounted for water to below 15% within 2 years, except for the

leaks that must be repaired within 60 days of discovery. Once the responsible party has prepared the Response Plan the department shall approve it within 90 days if it contains recommended actions that comply with the requirements specified in Env-Ws 390. The water system must implement the Response Plan upon receiving approval from the department. **

- Pressure Reduction. If applicable, the preliminary report shall include a schedule to implement pressure reduction when it is technically feasible, consistent with water system industry standards and regulations; and consistent with other public health and safety considerations. Include a proposal for pressure reduction if the above standards can be met.

- Conservation Rate Structure. If applicable, the preliminary report shall include a rate structure that promotes water conservation. The rate structure shall be based on a unit price of water; and the amount of water used by each connection to the water system. The unit price of water for residential connections shall remain the same or increase with the volume of water consumed. **

- Water Conservation Education Outreach Initiative. Propose a water conservation educational outreach initiative using materials prepared by the department. For small systems this initiative will include educational mailings and resemble a Source Water Protection Program for new well sitings. Implementation shall include the applicable public notification and outreach requirements to municipal governments within its service area as stated in Env-Ws 390.11, and promoting water conservation to customers immediately upon obtaining approval for the new source.**

**These activities outlined in the preliminary report shall be completed by water system personnel under the supervision of a certified water system operator.

Public Notification (Env-Ws 390.11). Within 7 days of submitting the report the applicant shall provide a copy of the application and report via certified mail to the governing board of the municipality in which a proposed source is located, all municipalities that will receive water from the water system (if any), all wholesale customers of the water system (if any), and the regional planning commission serving the location of the proposed source. In most cases, for small water systems, only the municipality and the regional planning commission will require notification. The notified entities may provide the department with written comments regarding the application within 21 day of receipt. The applicant must provide the governing boards with a summary of the requirements of Env-Ws 390. The applicant must request that the governing board amend the local site planning requirements to reflect the requirements of Env-Ws 390 or to promote water efficiency.

Site Visit (Env-Ws 390.12). The department shall conduct a site visit within 30 days of receipt of the report. The purpose of the site visit is to review the report with the water user and assess the accuracy of the processes described in the report.

The department shall either approve or deny the application within 45 days of receipt of the report.

On-Going Compliance with Water Conservation Rules (Env-Ws 390.13). The water system shall submit a form every 3 years documenting how compliance with the requirements of Env-Ws 390.04 in being achieved. This form will be supplied by the department.